

Notice of Allowability

Application No.

10/686,788

Examiner

Steven H. Rao

Applicant(s)

ASANO ET AL.

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/21/2004.
2. ☒ The allowed claim(s) is/are 1-35.
3. ☒ The drawings filed on 17 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/23 & 6/21/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Art Unit: 2814

Allowable Subject Matter

Priority

Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), claiming priority from Japanese Patent Application No. 2002-303484 filed on October 17, 2002 and PCT/JP03/11419 filed on September 08, 2003 which papers have been placed of record in the file.

Information Disclosure Statement

Acknowledgment is made of receipt of Applicant's Information Disclosure Statement (PTO-1449) filled on February 23, 2003 and June 21, 2004

The references on PTO 1499 submitted on 02/23/2003 and 06/21/2004 are acknowledged. All the cited references have been considered. However the foreign patents and documents cited by applicant are considered to the extent that could be understood from the abstract and drawings.

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Reasons for allowance

Claims 1-35 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitation of the dependent claims, in such manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims, which include A switching circuit device comprising a substrate comprising an insulating region; a first field effect transistor, a second field effect transistor, a third field effect transistor and a fourth field transistor, each of the first, second, third and forth transistors comprising a source electrode, a gate electrode and a drain electrode; a common input terminal connected to the source electrodes or the drain electrodes of the first and second transistors; a first output terminal connected to the source electrode or the drain electrode of the first transistor, which is not connected to the common input terminal, and connected to the source electrode or the drain electrode of the third transistor; a second output terminal connected to the source electrode or the drain electrode of the second transistor, which is not connected to the common input terminal, and connected to the source electrode or the drain electrode of the fourth transistor; a first control terminal connected to the gate electrodes of the first and fourth transistors, a second control terminal connected to the gate electrodes of the second and third transistors; a high-frequency ground terminal connected to the source electrodes or the drain

Art Unit: 2814

electrodes of the third and fourth transistors, which are not connected to the corresponding output terminals; and a protecting element comprising a first high concentration impurity region, a second high concentration impurity region and at least part of the insulating region of the substrate, said part of the insulating region being located between the first and second high concentration impurity regions, wherein the protecting element is connected between the first output terminal and the gate electrode of the third transistor or between the second output terminal and the gate electrode of the fourth transistor and is configured to discharge at least partially electrostatic energy of external origin through the protecting element so that the electrostatic energy is reduced enough not to provide an electrostatic breakdown voltage between the gate electrode and the corresponding source or drain electrode of the transistor that is connected to the protecting element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is (703) 3065945. The examiner can normally be reached on 8.00 to 5.00.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2814

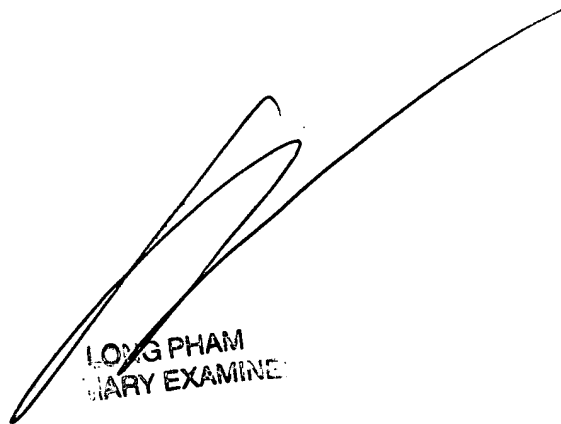
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven H. Rao

Patent Examiner

December 09, 2004.



LONG PHAM
PATENT EXAMINER